

ITEM #16

Irrigated Lands Regulatory Program

Manner in Which

Central Coast Groundwater Coalition (CCGC)

Groundwater Testing Results are

Disclosed to the Public

Angela Schroeter, PG
John M. Robertson, PG
January 30, 2015

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Purpose of Item 16

Respond to CRLA's July 3, 2014 request for discretionary review of CCGC's groundwater monitoring program – **Manner in Which Groundwater Testing Results are Disclosed to the Public** (Part 2)

CRLA:

- “The public has a right to readily accessible information about their drinking water; and contour mapping should act as a supplement to well information and not as a substitute.”

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Question Before the Board

Is the process for reviewing and approving CCGC contour maps appropriate, as established in the CCGC Workplan Approval letter?

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Background

March 2012 – Central Coast Water Board adopts Order, cooperative groundwater monitoring programs did not yet exist and requirements for individual growers and coops were nearly identical.

Agricultural Order R3-2012-0011

Condition 63:

“Groundwater quality data must be submitted in a format compatible with the electronic deliverable format used by the State Water Board’s GeoTracker data management system.”

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Background (cont.)

- **July 2013** – CCGC submitted a proposed workplan for implementing a cooperative groundwater monitoring program.
 - Conveyed concerns about disclosing data to the public:
“...any data loaded to GeoTracker would remain on the regulatory-only side of GeoTracker for the duration of the existing waiver and any extensions of that waiver”.
 - Proposed the use of contour maps, in lieu of displaying actual groundwater data for individual wells.

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Background (cont.)

- **July 2013** – Executive Officer approved the CCGC workplan with specific conditions.
 - CCGC Workplan Approval letter allowed CCGC to use contour maps to display nitrate concentration to the public, in lieu of displaying individual well data – if the contour maps meet specific criteria and are approved by the EO.
 - The EO did not agree that data would only remain on the regulatory side of GeoTracker and not available to the public.

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Background (cont.)

- **July 2013** – CCGC existed in concept, but was still in the process of formalizing their non-profit status and governance, and did not yet have established program boundaries, a known membership, or known groundwater sampling locations. Unknown if contour maps could meet criteria.
- **September 2013** – State Board modified Order to clarify groundwater monitoring requirements.
 - Emphasized the importance of drinking water safety and nitrate in groundwater.
 - Provided for a specific opportunity for discretionary review due to the “significant public interest and value” of groundwater monitoring data collected by cooperatives.

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Public Display of CCGC Nitrate Well Data

Issues/Considerations:

- Staff has access to all CCGC groundwater quality data in GeoTracker.
- CRLA wants to maximize **transparency** and the public’s access to information regarding unsafe drinking water, including the actual nitrate data for individual wells.
- CCGC members desire **anonymity** to alleviate security and privacy concerns, especially related to individual well nitrate levels.

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Question Before the Board

Is the process for reviewing and approving CCGC contour maps appropriate, as established in the CCGC Workplan Approval letter?

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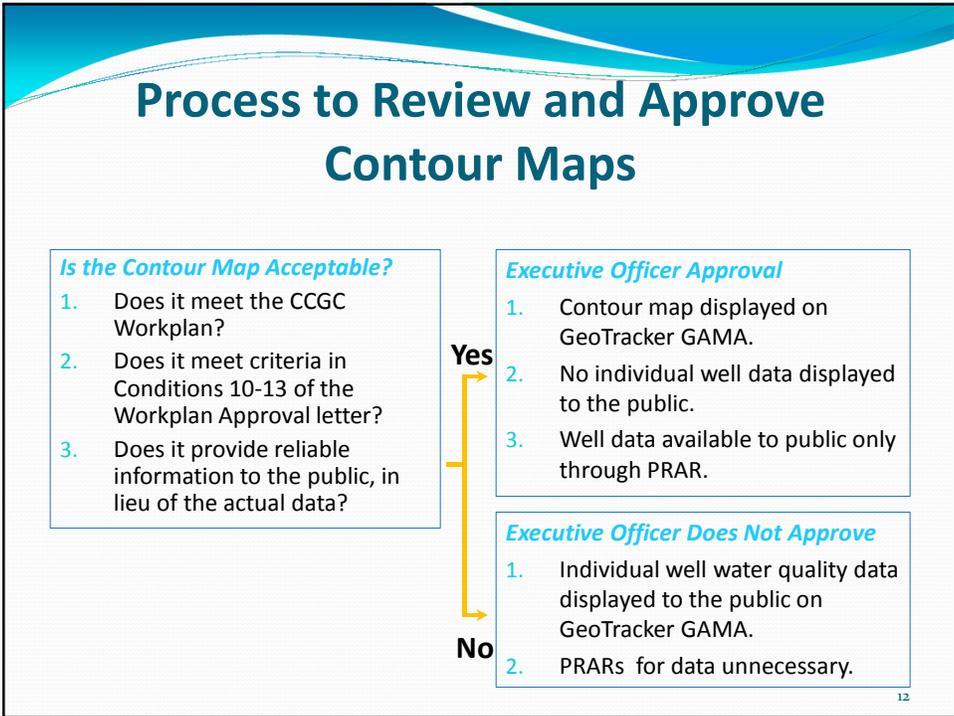
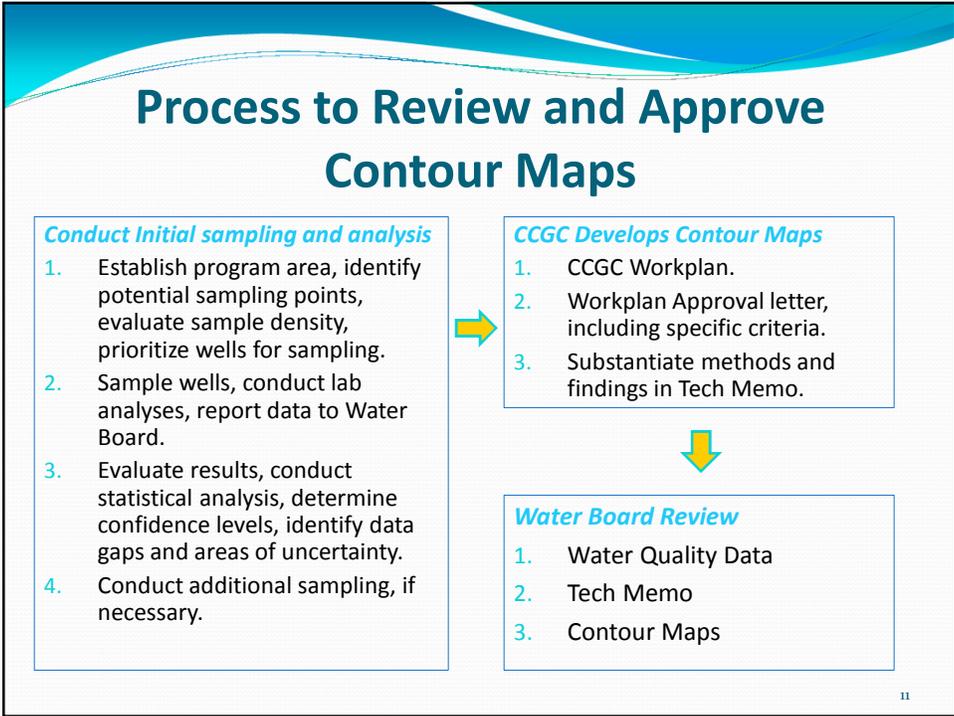
Contour Map Criteria

Criteria – Workplan Approval Letter
Use sufficient sampling density, resolution and scale to provide reliable information.
Use sampling design that is statistically defensible given the spatial variability of the aquifer.
Characterize groundwater nitrate concentrations at specific depths, focus on shallow groundwater.
Confidence level or certainty must be sufficient for providing reliable information to the public.
Consider additional data to increase confidence and validate adequacy of contours.
Use appropriate contour intervals to represent actual conditions, especially relative to the drinking water standard.
Include information such as method used to contour, depth, level of confidence, areas of uncertainty, and data exclusion on the map.
Developed by registered professional.
Provided in GIS format.

References:

- USEPA Technical Guidance Manual For Hydrogeologic Investigations and Groundwater Monitoring, Feb. 1995
- USEPA Representative Sampling Guidance – Contour Mapping, Dec. 1995
- Estimation of aquifer scale proportion using equal area grids: Assessment of regional scale groundwater quality – USGS; Water Resources Research, Vol. 46, 2010.

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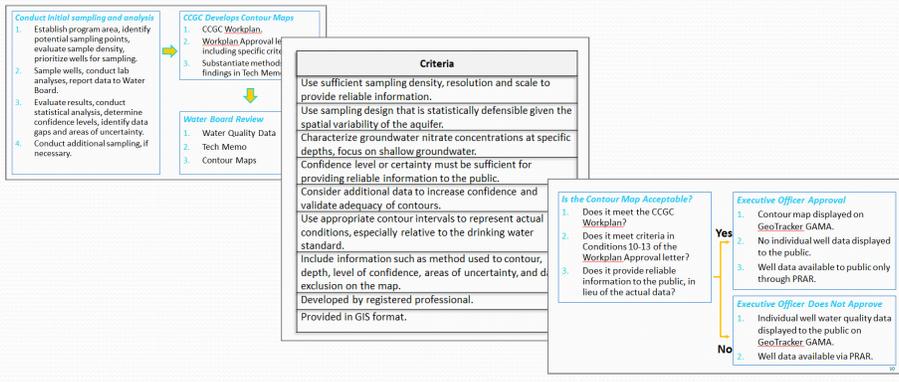


Question Before the Board

Is the process for reviewing and approving CCGC contour maps appropriate, as established in the CCGC Workplan Approval letter?

Staff's Evaluation of Process Workplan Approval Letter

Staff has evaluated the process for reviewing and approving CCGC contour maps and finds that it is appropriate.



Staff Recommendation

Staff recommends that the Executive Officer uphold the Workplan Approval letter, and not make any changes to the process for reviewing and approving CCGC contour maps.

If the Board agrees with staff's conclusion that the process is appropriate, the Executive Officer will send a letter to all interested parties that memorializes the conclusion of discretionary review and implement the appropriate next steps.

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Additional Info: Status of Contour Maps and Next Steps

Staff have evaluated the CCGC contour maps of nitrate concentration for Salinas Valley and has determined that the contour maps are not sufficient for providing reliable information to the public.

- Follow the process in the Workplan Approval letter.
- Provide public access to the CCGC groundwater nitrate data, similar to the display on GeoTracker GAMA for individual growers.
- Prioritizes public health and safe drinking water.
- Consistent with relevant policies.
- Provides access to critical information to advance solutions to nitrate problem.



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Question Before the Board

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Staff Recommendation:

Uphold the Workplan Approval letter, and not make any changes to the process for reviewing and approving CCGC contour maps.

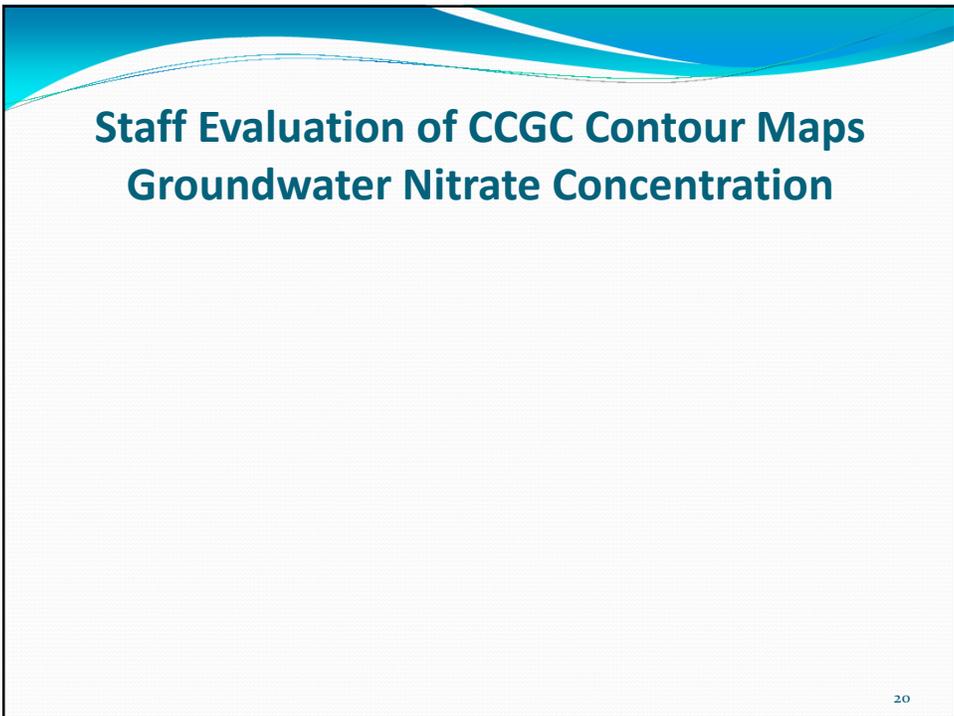
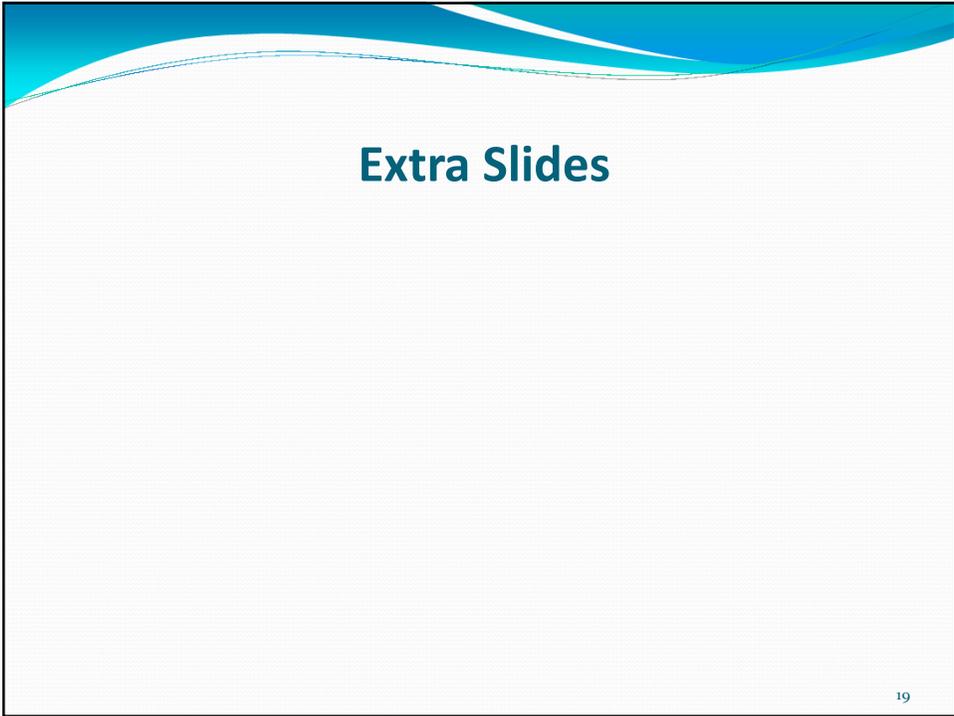
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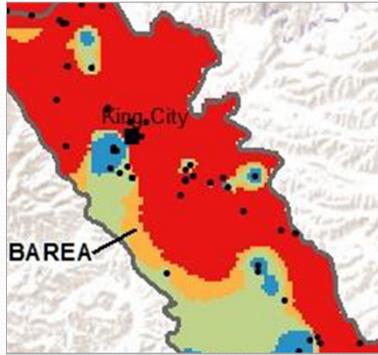
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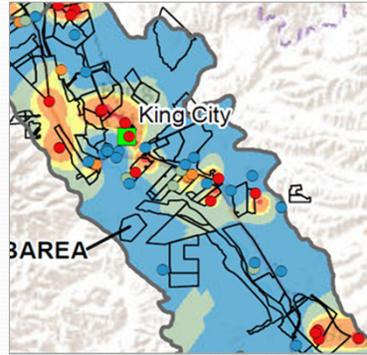


CCGC Contour Map Interpretations

April 2014



December 2014



CCGC Jan. 26, 2015 Comment Letter:
“Multiple interpretations are possible depending on the assumptions and what wells are used...”

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CCGC Tech Memo – April, 2014

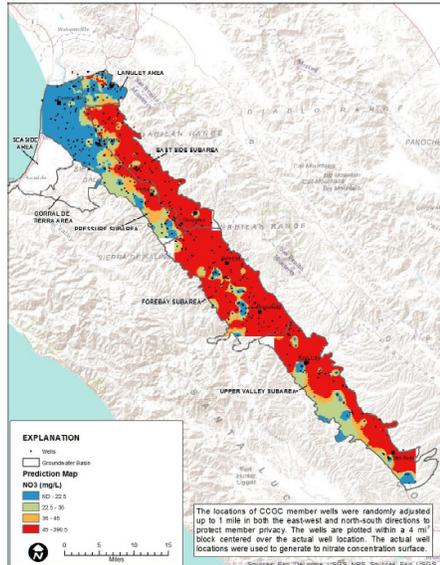


Figure 6. Kriged nitrate concentrations and delineation of areas with varying concentration ranges.

CCGC Tech Memo – Dec. 2014

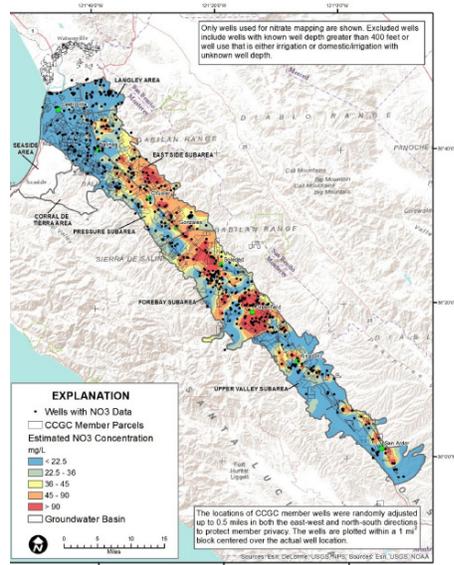


Figure 14. Kriged nitrate concentrations and member parcels.